

# THIR UNIVERD SHAVES OF AMERICA

<u>TO ALL TO WHOM THESE; PRESENTS; SHAML COME;</u>

Archer-Anniels-Midland Company

MICCUS, THERE HAS BEEN PRESENTED TO THE

# Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE CHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR FITTING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE PURPOSES, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT BY THE PLANT VARIETY PROTECTION ACT. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

BEAN, FIELD

'Bandit'

In Jestimone Mercest, I have hereunto set my hand and caused the seal of the Hant Haristy Frotestion Office to be affixed at the City of Washington, D.C. this seventh day of December, in the year two thousand and seven.

Allert

acrac-

Commissioner Plant Varioty Protection Office Agricultural Marketing Service ford T. Mafe

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
CIENCE AND TECHNOLOGY - PLANT VARIETY PROTECTION OFFICE

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE (7.5)		Application is required in order to deten (7 U.S.C. 2421). Information is held co	nine if a plant variety protection certificate is to be issued infidential until certificate is issued (7 U.S.C. 2426).			
			2. TEMPORARY DESIGNATION OR EXPERIMENTAL NAME	3. VARIETY NAME		
			B210237	BANDIT		
			TELEPHONE (include area code)	FOR OFFICIAL USE ONLY		
1666 PADTEC DADVIJAV			(217)451-2777	PVPO NUMBER		
, 12 01310			6. FAX (include area code)	#200700089		
y and the second second			(217)424–6196	HILING BAILE O & & & & &		
7. IF THE OWNER NAMED IS NOT A "PERSON", O ORGANIZATION (corporation, partnership, associ		8. IF INCORPORATED, GIVE STATE OF INCORPORATION	9. DATE OF INCORPORATION	JANUARY 12, 2007		
CORPORATION		DE	MAY 2, 1923	<u></u>		
10. NAME AND ADDRESS OF OWNER REPRESENTATIVE(S) TO SERVE IN THIS APPLICATION. (First person ANDREW F. NILLES CORPORATE COUNSEL/REGISTERED PATENT ATTORNEY ARCHER-DANIELS-MIDLAND COMPANY 4666 FARIES PARKWAY			erson listed will receive all papers)	E \$ 4,382.00  R DATE 112 07 CERTIFICATION FEE:  5 768.00		
DECATUR, IL 62526				D DATE 10/1/07		
11. TELEPHONE (include area code)	12. FAX (Includ	e area code)	13. E-MAIL			
(217) 451–2777	(217)4	24–6196	ANDREW NILLES @	ANDREW NILLES @ADMWORLD.COM		
14, CROP KIND (Common Name)	16. FAMILY NA	AME (Botanical)	18. DOES THE VARIETY CONTA	18. DOES THE VARIETY CONTAIN ANY TRANSGENES? (OPTIONAL)		
BLACK BEAN	LEGUMI	NOSAE	☐ YES ☐X NO			
15. GENUS AND SPECIES NAME OF CROP	17. IS THE VAR	RIETY A FIRST GENERATION HYBRII	D? IF SO, PLEASE GIVE THE A	SSIGNED USDA-APHIS REFERENCE NUMBER FOR THE DEREGULATE THE GENETICALLY MODIFIED PLANT FOR		
PHASEOLUS VULGARIS			COMMERICALIZATION.	DEREGULATE THE GENETIAN CONTROL TO THE TENT OF THE TEN		
19. CHECK APPROPRIATE BOX FOR EACH ATTA (Follow instructions on reverse)	CHMENT SUBMI	TTED	OF CERTIFIED SEED? (See	Y THAT SEED OF THIS VARIETY BE SOLD AS A CLASS a Section 83(a) of the Plant Variety Protection Act)		
a. Exhibit A. Origin and Breeding History	of the Variety		☐ YES (If "yes", answer	☐ YES (If "yes", answer items 21 and 22 below) 🔏 NO (If "no", go to item 23)		
b. 🛣 Exhibit B. Statement of Distinctness			NUMBER OF CLASSES?	Y THAT SEED OF THIS VARIETY BE LIMITED AS TO		
c. 🛣 Exhibit C. Objective Description of Vari	ety		_ :::	☐ YES ☐ NO		
d. 🔀 Exhibit D. Additional Description of the	Variety (Optional)		IF YES, WHICH CLASSES? ☐ FOUNDATION ☐ REGISTERED ☐ CERTIFIED  22. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO			
e. Kind Exhibit E. Statement of the Basis of the		hip	NUMBER OF GENERATION	Y THAT SEED OF THIS VARIETY BE LIMITED AS TO S?		
f. Kxhibit F. Declaration Regarding Deposit			☐ YES ☐ NO			
g. X Voucher Sample (3,000 viable untreated seeds or, for tuber propagated varieties, verification that tissue culture will be deposited and maintained in an approved public repository)				BER 1,2,3, etc. FOR EACH CLASS.		
g. ☐ Filing and Examination Fee (\$4,382), made payable to "Treasurer of the United States" (Mail to the Plant Variety Protection Office)			(If additional explanation is ne	GISTERED CERTIFIED cessary, please use the space indicated on the reverse.)		
23. HAS THE VARIETY (INCLUDING ANY HARVESTED MATERIAL) OR A HYBRID PRODUCED FROM THIS VARIETY BEEN SOLD, DISPOSED OF, TRANSFERRED, OR USED IN THE U. S. OR OTHER COUNTRIES?			24. IS THE VARIETY OR ANY CO INTELLECTUAL PROPERTY	OMPONENT OF THE VARIETY PROTECTED BY PRIGHT (PLANT BREEDER'S RIGHT OR PATENT)?  MAH Der West of		
☐ YES M NO			☐ YES X NO	'\$pt 11,2007		
IF YES, YOU MUST PROVIDE THE DATE OF FIRST SALE, DISPOSITION, TRANSFER, OR USE FOR EACH COUNTRY AND THE CIRCUMSTANCES. (Please use space indicated on reverse.)			IF YES, PLEASE GIVE COUN REFERENCE NUMBER. (Ple	ITRY, DATE OF FILING OR ISSUANCE AND ASSIGNED ase use space indicated on reverse.)		
for a tuber propagated variety a tissue culture w	vill be deposited in his sexually repro- tion 42 of the Plan	<ul> <li>a public repository and maintained to: duced or tuber propagated plant variety t Variety Protection Act.</li> </ul>	r the duration of the centricate.  r, and believe(s) that the variety is new, di	ccordance with such regulations as may be applicable, or stinct, uniform, and stable as required in Section 42, and is		

Owner(s) is (are) informed that false representation he	rein can jeopardize protection and result in	penalties.		
A FW SIGNATURE OF OWNER WWW		SIGNATURE OF OWNER		
NAME (Please print of type)		NAME (Please print or type)		
DAVID J. SMITH				
CAPACITY OR TITLE	DATE	CAPACITY OR TITLE	DATE	
EXECUTIVE VP, SECRETARY	1-11-2007			
AND GENERAL COUNSEL				

(See reverse for instructions and information collection burden statement)

GENERAL INSTRUCTIONS: To be effectively filed with the Plant Variety Protection Office (PVPO), ALL of the following items must be received in the PVPO: (1) Completed application form signed by the owner; (2) completed exhibits A, B, C, E, F; (3) for a tuber reproduced variety, verification that a viable (in the sense that it will reproduce an entire plant) tissue culture will be deposited and maintained in an approved public repository; and (4) payment by credit card or check drawn on a U.S. bank for \$4,382 (\$518 filing fee and \$3,864 examination fee), payable to "Treasurer of the United States" (See Section 97.6 of the Regulations and Rules of Practice). NEW: With the application for a seed reproduced variety or by direct deposit soon after filing, the applicant must provide at least 3,000 viable untreated seeds of the variety per se, and for a hybrid variety at least 3,000 untreated seeds of each line necessary to reproduce the variety. Partial applications will be held in the PVPO for not more than 90 days; then returned to the applicant as un-filed. Mail application and other requirements to Plant Variety Protection Office, AMS, USDA, Room 401, NAL Building, 10301 Baltimore Avenue, Beltsville, MD 20705-2351. Retain one copy for your files. All items on the face of the application are self explanatory unless noted below. Corrections on the application form and exhibits must be initialed and dated. DO NOT use masking materials to make corrections. If a certificate is allowed, you will be requested to send a payment by credit card or check payable to "Treasurer of the United States" in the amount of \$768 for issuance of the certificates. Certificates will be issued to owner, not licensee or agent.

NOTES: It is the responsibility of the applicant/owner to keep the PVPO informed of any changes of address or change of ownership or assignment or owner's representative during the life of the application/certificate. The fees for filing a change of address; owner's representative; ownership or assignment; or any modification of owner's name is specified in Section 97.175 of the regulations. (See Section 101 of the Act, and Sections 97.130, 97.131, 97.175(h) of the Regulations and Rules of Practice.)

**Plant Variety Protection Office** 

Telephone: (301) 504-5518

General E-mail: PVPOmail@usda.gov

Homepage: http://www.ams.usda.gov/science/pvpo/PVPindex.htm

FAX: (301) 504-5291

**#20**0700089

#### SPECIFIC INSTRUCTIONS:

To avoid conflict with other variety names in use, the applicant must check the appropriate recognized authority and **provide evidence** that the permanent name of the application variety (even if it is a parental, inbred line) has been cleared by the appropriate recognized authority before the Certificate of Protection is issued. For example, for agricultural and vegetable crops, contact: U.S. Department of Agriculture, Agricultural Marketing Service, Livestock and Seed Programs, **Seed Regulatory and Testing Branch**, 801 Summit Crossing Place, Suite C, Gastonia, North Carolina 28054-2193 Telephone: (704) 810-8870. http://www.ams.usda.gov/lsg/seed.htm.

#### ITEM

19a. Give:

- (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method;
- (2) the details of subsequent stages of selection and multiplication;
- (3) evidence of uniformity and stability, and
- (4) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified
- 19b. Give a summary of the variety's distinctness. Clearly state how this application variety may be distinguished from all other varieties in the same crop. If the new variety is most similar to one variety or a group of related varieties:
  - (1) identify these varieties and state all differences objectively;
  - (2) attach replicated statistical data for characters expressed numerically and demonstrate that these are clear differences; and
  - (3) submit, if helpful, seed and plant specimens or photographs (prints) of seed and plant comparisons which clearly indicate distinctness.
- 19c. Exhibit C forms are available from the PVPO Office for most crops; specify crop kind. Fill in Exhibit C (Objective Description of Variety) form as completely as possible to describe your variety.
- 19d. Optional additional characteristics and/or photographs. Describe any additional characteristics that cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the characteristics that are difficult to describe, such as plant habit, plant color, disease resistance, etc.
- 19e. Section 52(5) of the Act requires applicants to furnish a statement of the basis of the applicant's ownership. An Exhibit E form is available from the PVPO.
- 20. If "Yes" is specified (seed of this variety be sold by variety name only, as a class of certified seed), the applicant MAY NOT reverse this affirmative decision after the variety has been sold and so labeled, the decision published, or the certificate issued. However, if "No" has been specified, the applicant may change the choice. (See Regulations and Rules of Practice, Section 97.103).
- 23. See Sections 41, 42, and 43 of the Act and Section 97.5 of the regulations for eligibility requirements.
- 24. See Section 55 of the Act for instructions on claiming the benefit of an earlier filing date.
- 22. CONTINUED FROM FRONT (Please provide a statement as to the limitation and sequence of generations that may be certified.)
- 23. CONTINUED FROM FRONT (Please provide the date of first sale, disposition, transfer, or use for each country and the circumstances, if the variety (including any harvested material) or a hybrid produced from this variety has been sold, disposed of, transferred, or used in the U.S. or other countries.)
- 24. CONTINUED FROM FRONT (Please give the country, date of filing or issuance, and assigned reference number, if the variety or any component of the variety is protected by intellectual property right (Plant Breeder's Right or Patent).)

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 1.4 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohbits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, parental status, refigion, sexual orientation, genetic information, political beliefs, reprisal, or because all or part of an individual's income is derived from any public assistance program (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD).

To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410, or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

## Exhibit 19A: Origin and Breeding History of 'Bandit' black bean

Statement of Uniformity and Stability

Bandit was observed to be uniform and stable over five generations, since the plant structure and pod clearance traits of Bandit were present in all environments, locations, years and generations. No variants were observed.

Bandit was tested in thirty (30) environments in three countries (United States, Canada, Chile) over a period of four (4) years (2003, 2004, 2005, 2006) and five (5) generations (F4, F5, F6, F7 and F8).

During the advancement of Bandit by self pollination for seed production from the F4 through the F7 generations in Idaho over the years 2003, 2004, 2005 and 2006, the upright structure and improved pod clearance traits were uniformly expressed in Bandit.

Off-types at a percentage less than one can occur for almost any characteristic. Off-types for flower color and maturity were removed in the field before harvesting. Off-types for seed shape, color or size were removed on the mill line. Therefore, a low level of off-types during seed multiplication is considered to be within commercially acceptable limits.

Evidence of Uniformity and Stability

T39, a high yielding commercial black bean variety, was crossed with the upright variety Midnight in the winter cycle 1 greenhouse. F1 seeds showed no phenotypic variation and were planted in pots in the winter cycle 2 greenhouse in Caldwell, Idaho. After self-pollination, the F2 population was harvested.

The F2 seed was planted in the field in Caldwell, Idaho. The F2 plants showed variation for plant structure and pod number. Single plants within rows that had the upright structure of the Midnight parent, a minimum of 15 pods per plant, and at least 95% pod clearance from the ground were selected. The F2: F3 seed was harvested.

F3 seed was planted to single progeny rows in the field at Caldwell, Idaho. Rows that had the upright structure of the Midnight parent, 95% pod clearance and higher yield than both parents, were selected for advancement. All plants in the row displayed the upright phenotype uniformly.

B210237 (Bandit) is derived from a single F2:3 row selected for upright structure and increased seed yield by the modified pedigree breeding method. F2:4 seed harvested from the upright row was bulked and used as the source of seed for all subsequent generations.

Advance of Idaho-only-grown Generations for Seed Sale

F4 seed was advanced to F5 in Caldwell Idaho in yield trials.

F5 seed was advanced to F6 in Caldwell Idaho medium increase plots to generate 100 lbs.

F6 seed was advanced to F7 in Caldwell Idaho in large increase plots to generate 1800 lbs.

First acre of F8 breeder seed harvested. Bandit available for sale.

Testing Schedule of Seed Advanced in Idaho and Chile

F4 seed was planted in yield trials in Caldwell, Idaho. The F5 was harvested and planted in yield trials in Chile, where the F6 was harvested.

F6 from Chile was planted in Caldwell, Idaho and North Dakota for yield trials. The F7 harvested in Idaho was tested again in Chile.

The F7 harvested in Idaho was used for yield testing in Idaho. The F8 harvested from Chile was used for testing in Wyoming, North Dakota, Minnesota and Michigan. F7 seed was sent to Chile for winter increase.

F7 seed that had been produced in Idaho was tested in 15 locations across the U.S. and Canada as part of the Cooperative Dry Bean Nursery. Additional yield testing of Bandit was conducted on the F7 seed in Idaho and on the F8 seed (Chile) in Wyoming, North Dakota, Minnesota, Michigan, New York, and Ontario.

## Exhibit 19B: Summary of Bandit's Distinctness

Bandit most closely resembles the T39 black bean variety. Bandit has the dull black seed coat, seed size and shape of T39. Bandit and T39 both have the type II (CIAT scale) indeterminate growth habit.

Bandit (Upright Short Vine) is clearly distinguishable from T39 (Bush Short Vine) in its plant architecture or structure rating. Plant structure was measured by visual phenotyping of rows at the mature dry-down stage of development. Plants with no pods touching the ground and a stem axis perpendicular to the ground were given a score of 9. Plants with prostrate vines and most pods touching the ground were given a score of 0. Intermediate structures varied in the density of branching, angle of stem axis to the ground and percentage of pods touching the ground. In trials with 3 replicate samples conducted at Caldwell, Idaho and Powell, Wyoming in 2004, 2005 and 2006, Bandit averaged 7.8 for structure score, while T39 averaged 5.3. A paired T-test conducted on this data confirms that the difference in average values for Bandit and T39 are significant.

### Structure Scores for two varieties

			<u>B210237</u>	
<u>Year</u>	Environment Powell	<u>T39</u>	(Bandit)	
2005	Wyoming Powell	5.5	9.0	
2006	Wyoming	5.0	9.0	
2004	Caldwell Idaho Caldwell Idaho	4.8	6.3	
2005	Site A Caldwell Idaho	5.0	7.3	
2005	Site B	6.3	7.3	
2006	Caldwell Idaho	5.3	8.0	
	Mean	5.3	7.8	•
	Paired T Test		t-statistic =	-5.34694
	(Probability)			0.001,535

Rating of 1 = prostrate vine with all pods touching the ground; Rating of 9 = completely erect with no pods touching the ground Each rating represents the average of 3 replications in one trial.

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering end maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or part of an individual's income is derived from any public assistance program (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD).

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U.S. DEPARTMENT OF AGRICULTURE AGRICULTURAL MARKETING SERVICE **SCIENCE AND TECHNOLOGY** PLANT VARIETY PROTECTION OFFICE BELTSVILLE, MD 20705

**Exhibit C** 

# **OBJECTIVE DESCRIPTION OF VARIETY** Field Bean (Phaseolus vulgaris L.)

NAME OF APPLICANT (S)  ARCHER-DANIELS-MIDLAND COMPANY  B210237		ERIMENTAL DESIGNATION	VARIETY NAME  BANDIT	
ADDRESS (Street and No. or RD No., City, State, Zip Code, and C	ountry)		FOR OFFICIAL USE ONLY	
4666 FARIES PARKWAY			PVPO NUMBER	
DECATUR, IL 62526			# <b>20</b> 0700089	
PLEASE READ ALL INSTRUCTIONS CAREFULLY:				
Provide data for all characters unless indicated as "op Measured data should be the mean of an appropriate may be used to determine plant color. Designate the	number of well space	d (15-20 cm) plants. The Royal Ho	r numerical values that best describe this variety. orticultural Society or any recognized color standard	
COLOR SYSTEM USED:		LOCATION OF THE TEST(S) TO		
		Caldwell, Idaho	MAH Sleyli	
1. MARKET CLASS:		2 = MATURITY:	Of a fi	
O   3   CLASS   CHECK     1 = Navy (Pea)   Seafarer     2 = Small White   Aurora     3 = Black   Midnight     4 = Pinto   UI-114     5 = Great Northern   UI-59     6 = Small Red   NW-59     7 = Pink   Viva     8 = Cranberry   UI-50     9 = Dark Red Kidney   Montclaim     10 = Light Red Kidney   Redkloud     11 = Yellow Eye   Steuben     12 = Other (Specify		9 0 Days from Plant Heat Units Base Temp	2 = Medium (90-100 Days) 3 = Late (> 100 Days)  ting to Harvest Maturity  from Planting to Harvest Maturity (Optional). Specify perature Used:  ting to Harvest Maturity of Check Variety (Use Check Market Class Shown in Item 1)	
3. PLANT HABIT:				
<u>TYPE</u>		<u> </u>	of Mature Plant, in cm.	
<ul> <li>1 = Ia Bush-determinate, Strong and Erect Stem</li> <li>2 = Ib Bush-determinate, Weak Stem and Brand IIa Erect Growth Habit-indeterminate, Guide or not developed</li> <li>4 = IIb Erect Growth Habit-indeterminate, Guide with no Ability to Climb</li> <li>5 = IIIa Vine-indeterminate, Short Guides with no Ability to Climb</li> <li>6 = IIIb Vine-indeterminate, Long Guides with no Ability to Climbing, Pods Distribute Plant</li> <li>8 = IVb Indeterminate Climbing, Pods Concentred</li> </ul>	ches es (Runners) short es Medium to Long, no ability to Climb bility to Climb ad Throughout the	(Use Same ( 2 Pod Position: 1 = Lo 2 = Hi 3 = So	of Check Variety, in cm. Check as Above)  ow (Lower Pods Touching Soil Surface) igh (Lower Pods not Touching Soil Surface) cattered (Not Concentrated High or Low)  ne Harvest: 1 = Adapted 2 = Not Adapted  1 = Good 2 = Fair 3 = Poor	

Part of the Plant

### 4. LEAFLET MORPHOLOGY: (Use terminal Leaflet of a Fully Expanded Trifoliolate)



2 = Wrinkled



1 = Dull

3 = Semiglossy

4 = Variable

Shape:





2 = Lanceolate



1

3 = Deltoid



4 = Cordate



5 = Rhomboid

Apex of Leaflet:





2 = Acuminate







4 = Cuneate



5 = Attentuate



Base of Leaflet:



1 = Obtuse



2 = Oblique



3 = Cordate







#### 5. FLOWER COLOR AND DAYS TO BLOOM:



Color of Standard:

4 = Blue

1 = White

5 = Purple

3 = Pink 2 = Cream

2 = Cream

Color of Keel:

1 = White 4 = Blue

2 = Cream 5 = Purple 3 = Pink

Color of Wings:

1 = White 4 = Blue

5 = Purple

3 = Pink

Days to 50% Bloom

### 6. POD MORPHOLOGY: (Green Pod Morphology Optional)





**Primary Color:** 

Color Pattern:

1 = Solid 1 = Purple 2 = Striped

2 = Red

3 = Blotched

4 = Mottled

5 = Other\_

Color Modifier:

1 = Light

2 = Light Medium

3 = Green

4 = Yellow

5 = Tan

6 = Brown

7 = Other

Secondary Color:

3 = Medium

4 = Medium Dark

5 = Dark



Cross Section Shape: 1 = Flat

1 = Purple 2 = Red 3 = Green

4 = Yellow

5 = Tan

6 = Brown

7 = Other

2 = Pear

3 = Round

4 = Figure Eight





2

Pod Curvature

1 = Straight

4 = Recurved



Pod Beak Orientation:

1 = Straight

3 = Curved

2 = Curved Upward

3 = Curved Downward

4 = Variable Average Beak Length, in cm.

Constrictions:

1 = None

2 = Slight

3 = Deep

Average Number of Seeds per Pod

7. SEED COLOR:				
2 1 = Shiny 2 = Dull 3 = Semishiny 4 =	Variable 1 = Monoch	nrome 2 = Polychrome		
5 = Brown 6 = Pink 7 =	Buff 4 = Tan Secondary Red 8 = Purple Color:	1 = White 2 = Yellow 3 = Buff 4 = Tan 5 = Brown 6 = Pink 7 = Red 8 = Purple 9 = Blue 10 = Black 11 = Other		
Color Pattern: 1 = Solid 2 = Splashed 3 = Mottl 4 = Striped 5 = Flecked 6 = Dotte	· · · · · · · · · · · · · · · · · · ·	1 = Absent 2 = Present		
Hilar Ring Color: 1 = White 2 = Yello 8 = Purple 9 = Blue				
8. SEED SHAPE AND WEIGHT:				
Shape of Seed Taken 1 = Round 2 = From Middle of Pod:	Oval 3 = Cuboid 4 = Ki	dney 5 = Truncate Fastigate		
2 3 Dry Seed Weight in g/100g Seeds (Adjusted to 12	% Moisture)			
9. ANTHOCYANIN PIGMENTATION:				
2 Flowers 2 Ste	ns 1 Pods	Seeds		
2 = Present Leaves Pet	oles Peduncles	Nodes		
10. KNOWN DISEASE REACTION:				
DISEASES – COMMON NAME: Anthracnose, Rust, Powde White Mold, angular Leaf Spot, Bacterial Wilt, Halo Blight, F Virus, Bean Yellow Mosaic Virus, Curly Top Virus, Bacterial	uscous Blight, Common Bacterial Blight, Re	ed Node Virus, Pod Mottle Virus, Bean Common Mosaic		
Reaction: 1 = Susceptible 2 = Resistant	3 = Tolerant 4 = Avoidance			
(Give the Common Name (CN), Scientific Name (SN),	ርርባ ፑንርባ	LORUM		
		; Race(s)		
Disease: CN				
Disease: CN		; Race(s);		
Disease: CN				
Disease: CN				
11. KNOWN INSECT/NEMATODE RESISTANCE:				
PESTS – COMMON NAME: Aphids, Bean Pod Weevil, Bru Beetle, Root Know Nematode, Corn Seed Maggot, Spider N	chid Beetle, Corn Earworm, Flea Beetle, Le lites. Thrips. Weevils. Western Bean Cutow	eaf Hopper, Lesion Nematode, Lygus, Mexican Bean		
Reaction: 1 = Susceptible 2 = Resistant	3 = Tolerant 4 = Avoidance			
(Give the Common Name (CN), Scientific Name (SN),	and Race(s), Where Applicable)			
Pest: CN	SN	; Race(s);		
Pest: CN	SN	; Race(s);		
Pest: CN	SN	; Race(s):		
12. KNOWN PHYSIOLOGICAL STRESS REACTION:				
1 = Susceptible 2 = Resistant	Cold 3 Drought	Air Pollution		
3 = Tolerant 4 = Avoidance	Cold Drought	All Foliation		

## 13. COMMENTS:

B210237 (BANDIT) IS AN IMPROVEMENT OVER T39 IN THAT IT HAS MORE WHITE MOLD TOLERANCE THAN T39, IMPROVED YIELD STABILITY UNDER DROUGHT, HAS MORE UPRIGHT STRUCTURE, AND IS CAPABLE OF DIRECT HARVEST.

## Exhibit 19D: Additional Description of 'Bandit'

Significance of Bandit's Plant Architecture

Even though Bandit and T39 are Type II (CIAT scale) growth habit, the more upright 's structure of Bandit provides three benefits over T39.

- 1) Bandit's plant architecture allows Bandit to be directly harvested in the field as dry beans using equipment designed for soybean harvesting. T39 requires pulling or cutting of the dry plants prior to harvesting.
- 2) Bandit's plant architecture generates a porous canopy which does not trap as much humidity as does the canopy from the plant architecture of T39. The more porous canopy of Bandit helps to minimize the spread of fungal diseases such as white mold which severely limits yield. The upright structure and plant architecture of Bandit is believed to function as a disease avoidance mechanism.
- 3) Bandit is resistant to lodging. The upright structure of Bandit also minimizes the presence of foreign material in the harvested Bandit bean seed. The plant architecture of Bandit also minimizes dirt balls and stones during the harvest of Bandit, as well as improving the processing of harvested Bandit beans in the mill and further improves the quality of the food product.

REPRODUCE LOCALLY. Include form number and edition date on all	reproductions.	ORM APPROVED - OMB No. 0581-0055
U.S. DEPARTMENT OF AGRICULTURE AGRICULTURAL MARKETING SERVICE  EXHIBIT E  STATEMENT OF THE BASIS OF OMNIERSHIP	Application is required in order to det certificate is to be issued (7 U.S.C. 2 confidential until the certificate is issued.	421). The information is held
STATEMENT OF THE BASIS OF OWNERSHIP  1. NAME OF APPLICANT(S)	2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER	3. VARIETY NAME
ARCHER-DANIELS-MIDLAND COMPANY	B210237	BANDIT
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP, and Country)	5. TELEPHONE (Include area code)	6. FAX (Include area code)
4666 FARIES PARKWAY	(217) 451-2777	(217) 424–6196
DECATUR, IL 62526		
	7. PVPO NUMBER	
	4	200700089
8. Does the applicant own all rights to the variety? Mark an "X" in the		
9, Is the applicant (individual or company) a U.S. national or a U.S. b  10. Is the applicant the original owner?	pased company? If no, give name of company? If no, please answer one	Second Second
10. Is the applicant the original owner:	I no, piedoe dilevier san	•
a. If the original rights to variety were owned by individual(s), is ( YES  b. If the original rights to variety were owned by a company(ies) YES  11. Additional explanation on ownership (Trace ownership from original rights)	NO If no, give name of count, is (are) the original owner(s) a U.S. ba	ised company? ry
•	•	
PLEASE NOTE:		
Plant variety protection can only be afforded to the owners (not licens	sees) who meet the following criteria:	
If the rights to the variety are owned by the original breeder, that p     national of a country which affords similar protection to nationals o	erson must be a U.S. national, national of the U.S. for the same genus and spec	of a UPOV member country, or cies.
<ol><li>If the rights to the variety are owned by the company which employ nationals of a UPOV member country, or owned by nationals of a genus and species.</li></ol>	yed the original breeder(s), the compar country which affords similar protection	y must be U.S. based, owned by to nationals of the U.S. for the same
3. If the applicant is an owner who is not the original owner, both the	original owner and the applicant must r	meet one of the above criteria.
The original breeder/owner may be the individual or company who di Act for definitions.	irected the final breeding. See Section	41(a)(2) of the Plant Variety Protection

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 0.1 hour per response, including the time for reviewing the instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

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To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, D.C. 20250-9410 or call (202) 720-5964 (voice and TDD). USDA is an equal opportunity provide and employer.

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U.S. DEPARTMENT OF AGRICULTURE AGRICULTURAL MARKETING SERVICE SCIENCE AND TECHNOLOGY **PLANT VARIETY PROTECTION OFFICE** BELTSVILLE, MD 20705

**EXHIBIT F** DECLARATION REGARDING DEPOSIT

	DECLARATION REGARDING DEL COLL	<u> </u>
NAME OF OWNER (S)	ADDRESS (Street and No. or RD No., City, State, and Zip Code and Country)	TEMPORARY OR EXPERIMENTAL DESIGNATION
ARCHER-DANIELS-MIDLAND CO	4666 FARIES PARKWAY	B210237
	DECATUR, IL 62526	VARIETY NAME BANDIT
NAME OF OWNER REPRESENTATIVE (S)	ADDRESS (Street and No. or RD No., City, State, and Zip Code and Country)	FOR OFFICIAL USE ONLY
ANDREW F. NILLES	4666 FARIES PARKWAY DECATUR, IL 62526	PVPO NUMBEZ 0 0 7 0 0 0 8 9

I do hereby declare that during the life of the certificate a viable sample of propagating material of the subject variety will be deposited, and replenished as needed periodically, in a public repository in the United States in accordance with the regulations established by the Plant Variety Protection Office.

Anho F. Natha